NEUROSCIENCE

An International Journal under the editorial direction of IBRO

Volume 56, 1993

SUBJECT INDEX

Compiled by C. M. Booth

PERGAMON

NEUROSCIENCE

Chief Editors

P. G. KOSTYUK: *Department of General Physiology, A. A. Bogomoletz Institute of Physiology, Academy of Sciences, 4 Bogomoletz Street, Kiev 24, 252601 GSP, Ukraine*

R. LLINÁS: *Department of Physiology and Biophysics, New York University School of Medicine, 550 First Avenue, New York 10016, U.S.A.*

A. D. SMITH: *Department of Pharmacology, University of Oxford, Mansfield Road, Oxford OX1 3QT, U.K.*

Editorial Board

G. ASTON-JONES (*Philadelphia, PA*)
A. BJÖRKLUND (*Lund*)
T. V. P. BLISS (*London*)
J. P. BOLAM (*Oxford*)
A. G. BROWN (*Edinburgh*)
M. C. BROWN (*Oxford*)
J. BUREŠ (*Prague*)
R. E. BURKE (*Bethesda, MD*)
G. BUZSÁKI (*Newark, NJ*)
A. L. BYSOV (*Moscow*)
D. W. CHOI (*St Louis, MO*)
A. CONSTANTI (*London*)
M. COSTA (*Adelaide*)
J. T. COYLE (*Belmont, MA*)
W. CRILL (*Seattle, WA*)
A. C. CUELLO (*Montreal*)
A. C. DOLPHIN (*London*)
F. E. DUDEK (*Fort Collins, CO*)
S. B. DUNNETT (*Cambridge*)
D. EDGAR (*Liverpool*)
M. M. ESIRI (*Oxford*)
R. H. EVANS (*Bristol*)
D. S. FABER (*Philadelphia, PA*)
V. V. FANARDJIAN (*Yerevan*)
R. L. M. FAULL (*Auckland*)
R. FISCHER-COLBRIE (*Innsbruck*)
T. F. FREUND (*Budapest*)
G. GABELLA (*London*)
J. GARTHWAITE (*Beckenham*)
H. M. GERSCHENFELD (*Paris*)
J. GLOWINSKI (*Paris*)
J. A. GRAY (*London*)
A. M. GRAYBIEL (*Cambridge, MA*)
R. W. GUILLERY (*Oxford*)
L. HEIMER (*Charlottesville, VA*)
Z. HENDERSON (*Leeds*)
J. HERBERT (*Cambridge*)
M. HERKENHAM (*Bethesda, MD*)
D. E. HILLMAN (*New York, NY*)
T. HÖKFELT (*Stockholm*)
E. HOLTZMAN (*New York, NY*)
P. HOLZER (*Graz*)
O. HORNYKIEWICZ (*Vienna*)
J. HOUNSGAARD (*Copenhagen*)
S. P. HUNT (*Cambridge*)
H. JAHNSEN (*Copenhagen*)
B. E. JONES (*Montreal*)
E. G. JONES (*Irvine, CA*)
G. JU (*Xi'an*)
J. S. KELLY (*Edinburgh*)
B. I. KHODOROV (*Moscow*)
S. T. KITAI (*Memphis, TN*)
C. KÖHLER (*Basel*)
O. A. KRISHTAL (*Kiev*)
S. N. LAWSON (*Bristol*)
C. A. MARSDEN (*Nottingham*)
M. R. MATTHEWS (*Oxford*)
A. I. MATUS (*Basle*)
R. Y. MOORE (*Pittsburgh, PA*)
D. K. MOREST (*Farmington, CT*)
J. F. MORRIS (*Oxford*)
É. MUGNAINI (*Storrs, CT*)
W. J. H. NAUTA (*Cambridge, MA*)
T. ONO (*Toyama*)
F. ORREGO (*Santiago*)
J. M. PALACIOS (*Barcelona*)
S. L. PALAY (*Concord, MA*)
V. H. PERRY (*Oxford*)
J. M. POLAK (*London*)
P. RAKIC (*New Haven, CA*)
H. J. RALSTON (*San Francisco, CA*)
S. J. REDMAN (*Canberra*)
T. S. REESE (*Bethesda, MD*)
F. REINOSO-SUÁREZ (*Madrid*)
L. P. RENAUD (*Ottawa*)
M. RÉTHELYI (*Budapest*)
P. J. ROBERTS (*Bristol*)
H. A. ROBERTSON (*Halifax, N.S.*)
S. M. SHERMAN (*Stony Brook, NY*)
M. L. SHIK (*Moscow*)
M. V. SOFRONIEW (*Cambridge*)
P. SOMOGYI (*Oxford*)
C. SOTELO (*Paris*)
K. STARKE (*Freiburg*)
M. S. STARR (*London*)
M. STERIADE (*Québec*)
L. STJÄRNE (*Stockholm*)
K. SUZUKI (*Chapel Hill, NC*)
D. T. THEODOSIS (*Bordeaux*)
A. M. THOMSON (*London*)
S. R. VINCENT (*Vancouver*)
J. VOOGD (*Rotterdam*)
L. VYKLICKY (*Prague*)
K. D. WALTON (*New York, NY*)
X. S. T. WAN (*Beijing*)
S. P. WATSON (*Oxford*)
K. WICTORIN (*Lund*)
W. D. WILLIS (*Galveston, TX*)
H. WINKLER (*Innsbruck*)
D. J. WOODWARD (*Winston-Salem, NC*)
H. ZIMMERMANN (*Frankfurt*)
C. ZUCKER (*Boston, MA*)

IBRO Publications Committee

Chairman, A. D. SMITH; C. BLAKEMORE, R. LLINÁS, D. G. R. OTTOSON, D. P. PURPURA, P. G. STRATA.

Aims and Scope:
Neuroscience publishes papers describing the results of original research on any aspect of the scientific study of the nervous system. Since one of the chief aims of the Journal is to promote communication between neuroscientists, the type of paper most suitable for publication is that in which new observations are clearly and succinctly reported and in which the purpose of the study is made meaningful to scientists of other disciplines. Any paper, however short, will be considered for publication provided that it reports significant, new and carefully confirmed findings with full experimental details. For *Instructions to Authors* see Vol. 52, No. 1, pp. v–viii.

Production Editors: M. DAVIES, T. J. FISHER. *Editorial Assistants*: S. J. RUSSELL (U.K.), R. COXETER (U.S.).

Copyright © 1995 IBRO

VOLUME 56—SUBJECT INDEX

Note: For brain nuclei see relevant area, e.g. Hypothalamus, or under name of nucleus (e.g. Accumbens nucleus).

*Commentary
§Letter

Abbreviations used:

ACh	Acetylcholine
AchE	Acetylcholine esterase
cAMP	Adenosine 3',5'-cyclic phosphate
cGMP	Guanosine 3',5'-cyclic phosphate
CGRP	Calcitonin gene-related peptide
ChAT	Choline acetyltransferase
CNS	Central nervous system
5,7-DHT	5,7-Dihydroxytryptamine
DRG	Dorsal root ganglion
EAD	Experimental autoimmune dementia
EHL	Extensor hallucis longus
FGF	Fibroblast growth factor
GABA	Gamma-aminobutyric acid
GFAP	Glial fibrillary acidic protein
GHB	Gamma hydroxybutyric acid
HSP70	Heat shock protein 70
5-HT	5-Hydroxytryptamine
IEG	Immediate early gene
LTP	Longterm potentiation
MAb	Monoclonal antibody
MAP	Microtubule associated protein
MPTP	1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine
mRNA	Messenger ribonucleic acid
NA	Noradrenaline
NADPH	ß-Nicotinamide adenine dinucleotide phosphate
N-CAM	Neural cell adhesion molecule
NGF	Neuronal growth factor
NMDA	N-methyl-D-aspartate
NO	Nitric oxide
NPY	Neuropeptide Y
6-OHDA	6-Hydroxydopamine
PKA	Protein kinase A
PKC	Protein kinase C
SP	Substance P
TH	Tyrosine hydroxylase
t-ACPD	trans-1-Amino-cyclopentane-1,3-dicarboxylate
VIP	Vasoactive intestinal peptide

Accessory olfactory bulb,
induction of responses in the medial amygdala by electrical stimulation of the accessory olfactory bulb in female rat and evidence for excitatory glutamate and inhibitory GABA responses 56:355

Acetylcholine,
effect of long-term ethanol consumption on in vivo release in rat hippocampus and parietal cortex 56:465

Acetylcholine receptors,
co-expression of m1, m2, m3, and m4 muscarinic receptor mRNAs in rat and guinea-pig heart intrinsic neurons 56:1041
comparison of muscarinic and nicotinic agonist modulation of excitatory synaptic transmission in rat prefrontal cortex 56:23
electrophysiological characterization of a slow post-stimulus afterdepolarizing current involved in persistant muscarinic excitation in guinea-pig olfactory cortical neurons 56:887

Acetylcholinesterase,
effect of long-term ethanol consumption on activity in rat hippocampus and parietal cortex 56:465

Adenosine 3',5'-cyclic phosphate,
characterization of potassium currents in rat sensory neurons and modulation by opioids and cAMP 56:759

Adenosine 5'-triphosphate,
effect of the P_2 purine receptor antagonists suramin and Reactive Blue 2 on NA release in mouse vas deferens post-ganglionic sympathetic neurons 56:263§
ultrastructural morphology of synapses in rat brain and evidence for a high percentage of ATP-containing vesicles 56:247

Adenosine receptors,
localization of A_1 receptor binding sites in hippocampal neurons grafted into ischaemic CA1-lesioned rat

hippocampus 56:345
quantitation of adenosine A1 receptors followed by pentylentetrazol-induced seizures in mouse brain 56:711

Adrenergic receptors,
immunolocalization of α_{2A}-adrenergic receptors in rat brainstem 56:139
in situ localization of $ß_1$ and $ß_2$ adrenergic receptor mRNAs in rat brain 56:1023

Afferent nerves,
immunolocalization of GABA in synaptic boutons on primary afferent fibres in rat cuneate nucleus 56:973
selective activation of a primary afferent input to the dorsal horn by high DRG K^+ levels in rat spinal cord-DRG preparation in vitro 56:473

Alcohol,
effect of chronic consumption and of dehydration on supraoprtic nucleus in adult rat 56:657

Alzheimer's disease,
decrease in cholinergic neuron density in experimental autoimmune dementia in rat forebrain 56:75
effect of acidic FGF administration to the nucleus basalis magnocellularis on spatial memory following unilateral cortical devascularization in rat and effect on septal cells in vitro 56:955
immunolocalization of ALZ-50 in normal human brain 56:109
lack of toxic effects of ß-amyloid on GABA immunoreactive neurons in mixed embryonic rat hippocampal cultures 56:269§

trans-1-Amino-cyclopentane-1,3-dicarboxylate,
induction of a Na^+ inward current in dopaminergic mesencephalic neurons by activation of the metabotropic glutamate receptors by t-ACPD in rat 56:399

Amphetamines,
effect of chronic administration of corticosterones on the locomotor response to amphetamines in adrenalectomised rats 56:981

Amygdala,
induction of responses in the medial amygdala by electrical stimulation of the accessory olfactory bulb in female rat and evidence for excitatory glutamate and inhibitory GABA responses 56:355

ß-Amyloid,
lack of toxic effects on GABA immunoreactive neurons in mixed embryonic rat hippocampal cultures 56:269§

Anticonvulsive drugs,
differential effects of anticonvulsant agents on NMDA induced IEG expression in mouse CNS 56:703

Apoptosis,
induction in microglia by anti-CR3 antibody in mouse brain in vivo 56:529§

Assymetry,
qualitative and quantitative differences in parvalbumin and VIP-containing neurons in rat neocortex and possible role in anatomical assymetry 56:833

Astrocytes,
effect of basic FGF on rat dopaminergic mesencephalic neuronal survival in culture and dependency on the presence of astrocytes 56:379

ATP SEE Adenosine 5'-triphosphate

Auditory cortex,
stimulation of cholinergic basal forebrain area facilitates tone evoked responses in awake rat 56:61

Autoimmune dementia,
decrease in cholinergic neuron density in experimental autoimmune dementia in rat forebrain 56:75
effect of prolonged immunization with Torpedo cholinergic neuron high molecular weight neurofilament subunits on spatial behaviour in rat 56:83

Basal Ganglia SEE ALSO specific areas

Behaviour,
characterization of efferent connections from the hypothalamic grooming area in rat 56:199
effect of acidic FGF administration to the nucleus basalis magnocellularis on spatial memory following unilateral cortical devascularization in rat 56:955
effect of chronic administration of corticosterones on the locomotor response to amphetamines in adrenalectomised rats 56:981
effect of 5,7-DHT lesion on mianserin-induced conditioned place conversion and on 5-HT_{1C} receptors in rat brain 56:687
effect of long-term ethanol consumption on behaviour in rat 56:465
effect of prolonged immunization with Torpedo cholinergic neuron high molecular weight neurofilament subunits on spatial behaviour in experimental autoimmune dementia rat model 56:83
evidence for temporal dependence of training-induced increases in neuronal activity in chick forebrain 56:771

Blood,
comparison of chromagranin A immunoreactivity in cerebrospinal fluid and blood of normal humans and in hypertension, renal failure and Parkinsons Disease 56:999

Bradykinin,
identification of capsaicin- and bradykinin-sensitive sub-populations by cobalt uptake in rat DRG cell cultures 56:241

Brain,
characterization and localization of the main excitatory neurotransmitters in mammals 56:539*
cGMP-stimulated cyclic nucleotide phosphodiesterase mRNA expression in rat limbic system 56:673
effect of 5,7-DHT lesion on mianserin-induced conditioned place conversion and on 5-HT_{1C} receptors in rat 56:687
immunolocalization of a laminin-binding protein in normal mouse, rat and monkey and following transient ischaemic in rat 56:1009
immunolocalization of ALZ-50 in normal human 56:109
induction of mitosis and apoptosis of microglia by anti-CR3 antibody in mouse in vivo 56:529§
in situ localization of $ß_1$ and $ß_2$ adrenergic receptor mRNAs in rat 56:1023
possible role of neuromelanin in MPTP-induced neurotoxicity in primate midbrain catecholaminergic neurons 56:499
protective effect of the NMDA receptor blocker CGS-19755 against ischaemia alone and in combination with hypothermia in gerbil 56:915
quantitation of adenosine A1 receptors followed by pentylentetrazol-induced seizures in mouse brain 56:711
ultrastructural morphology of synapses in rat and evidence for a high percentage of ATP-containing vesicles 56:247

Brain-derived neurotrophic factor,
increase associated with kainate-induced seizures and hippocampal synaptic re-organization in rat 56:597

Brainstem,
immunolocalization of α_{2A}-adrenergic receptors in rat 56:139
model of circuits between cerebellum, inferior olive and brainstem nuclei: possible explanation for motor control and motion sickness 56:647

α-Bungarotoxin,
inhibition of neurite outgrowth by nicotine and role of the nicotinic α-bungarotoxin receptor in PC12 cells in culture 56:441

BW1003C87,
protection against transient forebrain ischaemia in rat hippocampus and neostriatum 56:93

Calbindin,
immunolocalization in rat hippocampus following unilateral CA3 kainate injection: evidence for selective ipsi- and contralateral neuronal death 56:317
selective loss of striatal striosome compartment, low calbindin-immunoreactive neurons following hypoxic-ischaemic injury in neonatal rats 56:305

Calcitonin,
immunolocalization of highly polysialylated N-CAM in foetal rat thyroidal calcitonin-producing cells and rMTC 6-23 cell line 56:777

Calcitonin gene-related peptide,
identification of rectospinal neurons projecting to spinal cord and co-immunolocalization of VIP and CGRP in rat 56:367

Calcium current,
modification of effects of α-latrotoxin by MAbs on GABA release and Ca^{2+} currents in rat cortical synaptosome 56:695

Calretinin,
early degeneration in calretinin-containing spiny, non-pyramidal hippocampal cells following ischaemia in rat 56:581
immunolocalization in rat hippocampus following unilateral CA3 kainate injection: evidence for selective ipsi- and contralateral neuronal death 56:317

cAMP SEE Adenosine 3',5'-cyclic phosphate,

Cannabinoid receptors,
loss in substantia nigra in Huntington's disease 56:523§

Capsaicin,
identification of capsaicin- and bradykinin-sensitive sub-populations by cobalt uptake in rat DRG cell cultures 56:241

Catecholaminergic neurons,
immunolocalization of α_{2A}-adrenergic receptors in rat brainstem 56:139

Caudate nucleus,
co-immunolocalization of SP and ChAT in cat 56:567

Central nervous system,
differential effects of anticonvulsant agents on NMDA induced IEG expression in mouse 56:703
differential localization of MAPK1 and MAPK2 mRNA in adult rat 56:741

Cerebellum,
evidence for transient bilateral innervation by inferior olive neurons during development in rat 56:485
immunolocalization of 6 isoforms of PKC in rat cerebellar cortex 56:177
model of circuits with inferior olive and brainstem nuclei: possible explanation for motor control and motion sickness 56:647
proposed role with inferior olive in model of sensorimotor plasticity: stable estimator hypothesis 56:617

Cerebral blood flow,
effect of hindbrain ischaemia on local cerbral blood flow and detection of lesions by immunolocalization of MAP2 in gerbil hindbrain 56:423

Cerebral cortex,
comparison of muscarinic and nicotinic agonist modulation of excitatory synaptic transmission in rat prefrontal cortex 56:23
electrophysiological properties of intralaminar thalamocortical cells during waking and REM sleep in cat 56:1
GHB-induced spike and wave properties in rat and role of GHB high affinity receptors 56:11
modification of effects of α-latrotoxin by MAbs on GABA release and Ca^{2+} currents in rat cortical synaptosome 56:695
organization of 5HT neurons projecting from the dorsal Raphe nucleus in rat 56:157
qualitative and quantitative differences in parvalbumin and VIP-containing neurons in rat and possible role in anatomical assymetry 56:833

Cerebrospinal fluid,
comparison of chromagranin A immunoreactivity in cerebrospinal fluid and blood of normal humans and in hypertension, renal failure and Parkinsons Disease 56:999

CGS-19755,
protective effect of the NMDA receptor blocker CGS-19755 against ischaemia alone and in combination with hypothermia in gerbil brain 56:915

Choline acetyltransferase,
co-immunolocalization with SP in cat caudate nucleus 56:567

Cholinergic neurons,
decrease in density in experimental autoimmune dementia in rat forebrain 56:75
effect of prolonged immunization with Torpedo cholinergic neuron high molecular weight neurofilament subunits on spatial behaviour in experimental autoimmune dementia rat model 56:83
stimulation of cholinergic basal forebrain area facilitates tone evoked responses in auditory cortex of awake rat 56:61

Cholinergic receptors,
muscarinic,
localization of receptor binding sites in hippocampal neurons grafted into ischaemic CA1-lesioned rat hippocampus 56:345

Chromogranin A,
comparison of immunoreactivity in cerebrospinal fluid and blood of normal humans and in hypertension, renal failure and Parkinsons Disease 56:999

Ciliary neurotrophic factor,
increase associated with kainate-induced seizures and hippocampal synaptic re-organization in rat 56:597

Circadian rhythm
differential responses of identified paraventricular neurons to suprachiasmatic nucleus stimulation in rat and possible role in circadian rhythm 56:823
effect of exposure to light on suprachiasmatic nucleus NPY levels and role of geniculohypothalamic neurons in circadian rhythm in rat 56:813
role of cellular communication in the hypothalamic suprachiasmatic nucleus: review 56:793*

Cobalt,
identification of capsaicin- and bradykinin-sensitive sub-populations by cobalt uptake in rat DRG cell cultures 56:241

Colon,
co-localization of cGMP and NADPH diaphorase in canine colon and evidence for role of NO as neurotransmitter in colonic muscle and enteric ganglia 56:513

Corticosterone,
effect of chronic administration on the locomotor response to amphetamines in adrenalectomised rats 56:981

Coupling,
demonstration of coupling in noradrenergic locus coeruleus neurons during development in rat 56:129

Cuneate nucleus,
immunolocalization of GABA in synaptic boutons on primary afferent fibres in rat 56:973

3',5'-cyclic guanosine monophosphate,
co-localization with NADPH diaphorase in canine colon and evidence for role of NO as neurotransmitter in colonic muscle and enteric ganglia 56:513

Cyclic nucleotide phosphodiesterase,
cGMP-stimulated cyclic nucleotide phosphodiesterase mRNA expression in rat limbic system 56:673

Degeneration,
early onset in calretinin-containing spiny, non-pyramidal hippocampal cells following ischaemia in rat 56:581

Degenerative diseases,
induction of apoptosis and mitosis in microglia by anti-CR3 antibody in mouse brain in vivo 56:529§

Dehydration,
effect on adult rat supraoptic nucleus 56:657

Dentate gyrus,
co-immunolocalization of neuron-specific enolase and GFAP in newly born [^{3}H]Thymidine-labelled neurons and glia in adult rat 56:337
correlation between IEG mRNA and protein induction and persistent LPT3 in rat 56:717

Deoxyribose nucleic acid,
effect of osmotic stress on synthesis in mouse neurohypophyseal microglia 56:929

DNA SEE Deoxyribose nucleic acid

L-DOPA,
protection against supersensitivity effects of L-DOPA by foetal nigral grafts into 6OHDA-lesioned rat striatum and effect on dopamine receptor levels 56:45

Dopamine,
differential effect of previous birth/maternal experiences on neurotransmitter release in the olfactory bulb at parturition in sheep 56:557
effect of neonatal enucleation on levels in rat superior colliculus 56:165

Dopamine receptors,
effect of quinpirole, eticlopride and haloperidol on electrophysiological and pharmacological properties of rat ventral midbrain dopaminergic neurons in long term cultures 56:409
protection against supersensitivity effects of L-DOPA by foetal nigral grafts into 6OHDA-lesioned rat striatum and effect on dopamine D_1 D_2 receptor levels 56:45

Dopaminergic neurons,
effect of basic FGF on rat mesencephalic neuronal survival in culture and dependency on the presence of astrocytes 56:379
effect of basic FGF pretreatment and repeated administration on nigral dopaminergic neuronal survival following transplantation into rat striatum 56:389
effect of GM-1 ganglioside on dopaminergic midbrain neurons following MPTP treatment in monkey 56:965
electrophysiological and pharmacological properties of rat ventral midbrain neurons in long term cultures 56:409
enhanced survival but not differentiation in co-culture with human foetal mesencephalic target glial cells 56:53
induction of a Na^+ inward current in mesencephalic neurons by activation of the metabotropic glutamate receptors by t-ACPD in rat 56:399
possible role of neuromelanin in MPTP-induced neurotoxicity in primate midbrain dopaminergic neurons 56:499

Dorsal root ganglion,
identification of capsaicin- and bradykinin-sensitive sub-populations by cobalt uptake in rat cultures 56:241
selective activation of a primary afferent input to the dorsal horn by high DRG K^+ levels in rat spinal cord-DRG preparation in vitro 56:473

Down's syndrome,
decrease in cholinergic neuron density in experimental autoimmune dementia in rat forebrain 56:75

Enteric neurons,
identification of rectospinal neurons projecting to spinal cord and co-immunolocalization of VIP and CGRP in rat 56:367
role of NO as neurotransmitter in canine enteric ganglia 56:513

Ethanol,
effect of long-term consumption on in vivo ACh release, AChE activity and behaviour in rat hippocampus and parietal cortex 56:465

Excitatory amino acids,
characterization and localization of the main excitatory neurotransmitters in mammalian brain 56:539*
comparison of muscarinic and nicotinic agonist modulation of excitatory synaptic transmission in rat prefrontal cortex 56:23

Extracellularly regulated kinase SEE Microtubule-associated protein kinase

Fibroblast growth factor,
effect of acidic FGF administration to the nucleus basalis magnocellularis on spatial memory following

unilateral cortical devascularization in rat and effect on septal cells in vitro 56:955
effect of basic FGF on rat dopaminergic mesencephalic neuronal survival in culture and dependency on the presence of astrocytes 56:379
effect of basic FGF pretreatment and repeated administration on nigral dopaminergic neuronal survival following transplantation into rat striatum 56:389

Forebrain,
decrease in cholinergic neuron density in experimental autoimmune dementia in rat 56:75
evidence for temporal dependence of training-induced increases in neuronal activity in chick 56:771
protection against transient forebrain ischaemia by BW1003C87 in rat hippocampus and neostriatum 56:93
stimulation of cholinergic basal area facilitates tone evoked responses in auditory cortex of awake rat 56:61

GABA SEE Gamma-aminobutyric acid

GABAergic neurons,
lack of toxic effects of ß-amyloid on GABA immunoreactive neurons in mixed embryonic rat hippocampal cultures 56:269§

Gamma-aminobutyric acid,
differential effect of previous birth/maternal experiences on neurotransmitter release in the olfactory bulb at parturition in sheep 56:557
effect on electrophysiological and pharmacological properties of rat ventral midbrain dopaminergic neurons in long term cultures 56:409
immunolocalization in synaptic boutons on primary afferent fibres in rat cuneate nucleus 56:973
induction of responses in the medial amygdala by electrical stimulation of the accessory olfactory bulb in female rat and evidence for excitatory glutamate and inhibitory GABA responses 56:355
modification of effects of α-latrotoxin by MAbs on GABA release and Ca^{2+} currents in rat cortical synaptosome 56:695

Gamma-aminobutyric acid receptors,
localization of $GABA_A$ receptor binding sites in hippocampal neurons grafted into ischaemic CA1-lesioned rat hippocampus 56:345
modulatory effect of $GABA_A$ receptor antagonists on odour induced activity in granule cells in frog olfactory bulb 56:905
quantitative localization of $GABA_A$ receptor binding sites in marmoset visual cortex 56:877

Gangliosides,
effect of GM-1 ganglioside on dopaminergic midbrain neurons following MPTP treatment in monkey 56:965

Glial cells,
effect of osmotic stress on DNA synthesis in mouse neurohypophyseal microglia 56:929
enhanced survival but not differentiation of human foetal dopaminergic neurons in co-culture with mesencephalic target glial cells 56:53

Glial fibrillary acidic protein,
co-immunolocalization with neuron-specific enolase in newly born [^{3}H]Thymidine-labelled neurons and glia in adult rat dentate gyrus 56:337

Glutamate,
differential effect of previous birth/maternal experiences on neurotransmitter release in the olfactory bulb at parturition in sheep 56:557
effect on electrophysiological and pharmacological properties of rat ventral midbrain dopaminergic neurons in long term cultures 56:409
glutamatergic and non-glutamatergic responses to thoracic spinal cord stimulation in neonatal rat lumbar motor neurons 56:189
induction of responses in the medial amygdala by electrical stimulation of the accessory olfactory bulb in female rat and evidence for excitatory glutamate and inhibitory GABA responses 56:355

Glutamate receptors,
induction of a Na^+ inward current in dopaminergic mesencephalic neurons by activation of the metabotropic glutamate receptors by t-ACPD in rat 56:399
quantitative localization in marmoset visual cortex 56:877

Glutaminergic neurons,
reorganization following neonatal enucleation in rat superior colliculus 56:165

Glycine receptors,
reduction in the fast desensitizing glycine currents by PKA mediated phosphorylation in rat dissociated ventromedial hypothalamic neurons 56:605

Grafts,
effect of basic FGF pretreatment and repeated administration on nigral dopaminergic neuronal survival following transplantation into rat striatum 56:389
localization of receptor binding sites in hippocampal neurons grafted into ischaemic CA1-lesioned rat hippocampus 56:345
protection against supersensitivity effects of L-DOPA by foetal nigral grafts into 6OHDA-lesioned rat striatum and effect on dopamine receptor levels 56:45
restoration of function in Parkinsonism model by modified nigral cell transplants into rat striatum 56:33

Gut,
identification of rectospinal neurons projecting to spinal cord and co-immunolocalization of VIP and CGRP in rat 56:367

Hearing,
stimulation of cholinergic basal forebrain area facilitates tone evoked responses in awake rat auditory cortex 56:61

Heart,
co-expression of m1, m2, m3, and m4 muscarinic receptor mRNAs in rat and guinea-pig intrinsic neurons 56:1041

Heat shock protein 70,
immunolocalization and possible protective effects in ischaemic tolerance induced by preconditioning ischaemia in rat hippocampus 56:921

Hindbrain,
effect of hindbrain ischaemia on local cerbral blood flow and detection of lesions by immunolocalization of MAP2 in gerbil 56:423

Hippocampus,
early degeneration in calretinin-containing spiny, non-pyramidal hippocampal cells following ischaemia in rat 56:581
effect of long-term consumption on in vivo ACh release, AChE activity and behaviour in rat 56:465
immunolocalization of HSP 70 and possible protective

effects in ischaemic tolerance induced by preconditioning ischaemia in rat 56:921
increase in neurotrophins associated with kainate-induced seizures and hippocampal synaptic re-organization in rat 56:597
lack of toxic effects of ß-amyloid on GABA immunoreactive neurons in mixed embryonic rat hippocampal cultures 56:269§
localization of receptor binding sites in hippocampal neurons grafted into ischaemic CA1-lesioned rat 56:345
mapping of CA1 responses following ipsi- and contralateral CA3 stimulation in rat 56:101
protection against transient forebrain ischaemia by BW1003C87 in rat 56:93
review: quantal analysis of LTP and synaptic plasticity 56:275*
selective ipsi- and contralateral hippocampal neuronal death following unilateral CA3 kainate injection demonstrated by silver staining and immunolocalization of parvalbumin, calbindin-D, calretinin and somatostatin in rat 56:317

Huntington's disease,
loss of cannabinoid receptors in human substantia nigra 56:523§

γ-Hydroxybutyric acid,
induction of spike and wave properties in rat thalamus and cortex: role of high affinity receptors 56:11

5-Hydroxytryptamine,
possible role in non-glutamatergic responses to thoracic spinal cord stimulation in neonatal rat lumbar motor neurons 56:189

5-Hydroxytryptamine neurons,
organization of 5HT neurons projecting from the dorsal Raphe nucleus to the cerebral cortex, hypothalamus and spinal cord in rat 56:157
reorganization following neonatal enucleation in rat superior colliculus 56:165

5-Hydroxytryptamine receptors,
effect of 5,7-DHT lesion on mianserin-induced conditioned place conversion and on 5-HT_{1C} receptors in rat brain 56:687
quantitative localization of 5-HT_1 binding sites in marmoset visual cortex 56:877

Hypertension,
comparison of chromagranin A immunoreactivity in cerebrospinal fluid and blood of normal humans and in hypertension, renal failure and Parkinsons Disease 56:999

Hypothalamus,
characterization of efferent connections from the grooming area in rat 56:199
organization of 5HT neurons projecting from the dorsal Raphe nucleus in rat 56:157
reduction in the fast desensitizing glycine currents by PKA mediated phosphorylation in rat dissociated ventromedial neurons 56:605
cellular communication in the suprachiasmatic nucleus: review 56:793*

Hypothermia,
protective effect of the NMDA receptor blocker CGS-19755 against ischaemia alone and in combination with hypothermia in gerbil brain 56:915

Hypoxia-ischaemia,
selective loss of striatal striosome compartment, low calbindin-immunoreactive neurons following hypoxic-ischaemic injury in neonatal rats 56:305

Immediate early genes,
correlation between IEG mRNA and protein induction and persistent LPT3 in rat dentate gyrus 56:717
differential effect of nicotine on expression in rat superior cervical ganglion 56:729
differential effects of anticonvulsant agents on NMDA induced IEG expression in mouse CNS 56:703

Inferior olive,
evidence for transient bilateral innervation of the cerebellum by inferior olive neurons during development in rat 56:485
model of circuits between cerebellum, inferior olive and brainstem nuclei: possible explanation for motor control and motion sickness 56:647
proposed role with cerebellum in model of sensorimotor plasticity: stable estimator hypothesis 56:617

Intrinsic neurons,
co-expression of m1, m2, m3, and m4 muscarinic receptor mRNAs in rat and guinea-pig heart 56:1041

Ischaemia,
early degeneration in calretinin-containing spiny, non-pyramidal hippocampal cells following ischaemia in rat 56:581
effect of hindbrain ischaemia on local cerbral blood flow and detection of lesions by immunolocalization of MAP2 in gerbil hindbrain 56:423
immunolocalization of a laminin-binding protein in normal mouse, rat and monkey brain and following transient ischaemic in rat 56:1009
immunolocalization of HSP 70 and possible protective effects in ischaemic tolerance induced by preconditioning ischaemia in rat hippocampus 56:921
localization of receptor binding sites in hippocampal neurons grafted into ischaemic CA1-lesioned rat hippocampus 56:345
protection against transient forebrain ischaemia by BW1003C87 in rat hippocampus and neostriatum 56:93
protective effect of the NMDA receptor blocker CGS-19755 and hypothermia in gerbil brain 56:915
selective loss of striatal striosome compartment, low calbindin-immunoreactive neurons following hypoxic-ischaemic injury in neonatal rats 56:305

Ischaemic tolerance,
immunolocalization of HSP 70 and possible protective effects in ischaemic tolerance induced by preconditioning ischaemia in rat hippocampus 56:921

Kainic acid,
increase in neurotrophins associated with kainate-induced seizures and hippocampal synaptic re-organization in rat 56:597
selective ipsi- and contralateral hippocampal neuronal death following unilateral CA3 hippocampal injection and immunolocalization of parvalbumin, calbindin-D, calretinin and somatostatin in rat 56:317

Kainic acid receptors,
localization of receptor binding sites in hippocampal neurons grafted into ischaemic CA1-lesioned rat hippocampus 56:345

Kidney,
identification of renal sympathetic preganglionic neurons in hamsters using retrograde labelling with Herpes simplex virus 56:227

Laminin-binding protein,
immunolocalization in normal mouse, rat and monkey brain and following transient ischaemic in rat 56:1009

Lateral geniculate nucleus,
effect of exposure to light on suprachiasmatic nucleus NPY levels and role of geniculohypothalamic neurons in circadian rhythm in rat 56:813

α-Latrotoxin,
modification of effects of α-latrotoxin by MAbs on GABA release and Ca^{2+} currents in rat cortical synaptosome 56:695

Light,
effect of exposure to light on suprachiasmatic nucleus NPY levels and role of geniculohypothalamic neurons in circadian rhythm in rat 56:813

Limbic system,
cGMP-stimulated cyclic nucleotide phosphodiesterase mRNA expression in rat brain 56:673

Locomotion,
effect of chronic administration of corticosterones on the locomotor response to amphetamines in adrenalectomised rats 56:981

Locus coeruleus,
demonstration of coupling of noradrenergic neurons during development in rat 56:129
time-dependent increases in TH mRNA, TH enzyme activity and NA release following a single dose of nicotine in rat 56:989

Long-term potentiation,
correlation between IEG mRNA and protein induction and persistent LPT3 in rat dentate gyrus 56:717
review: quantal analysis of LTP and synaptic plasticity in hippocampus 56:275*

Mesencephalon,
effect of basic FGF on rat dopaminergic neuronal survival in culture and dependency on the presence of astrocytes 56:379
enhanced survival but not differentiation of human foetal dopaminergic neurons in co-culture with mesencephalic target glial cells 56:53
induction of a Na^+ inward current in dopaminergic mesencephalic neurons by activation of the metabotropic glutamate receptors by t-ACPD in rat 56:399

1-Methyl-4-phenyl-1,2,3,6-tetrahydropyridine,
effect of GM-1 ganglioside on dopaminergic midbrain neurons following MPTP treatment in monkey 56:965
possible role of neuromelanin in MPTP-induced neurotoxicity in primate midbrain dopaminergic neurons 56:499

N-methyl-D-aspartate,
differential effects of anticonvulsant agents on NMDA induced IEG expression in mouse CNS 56:703
protective effect of the NMDA receptor blocker CGS-19755 against ischaemia alone and in combination with hypothermia in gerbil brain 56:915

N-methyl-D-aspartate receptors,
quantitative localization in marmoset visual cortex 56:877

Microglia,
induction of mitosis and apoptosis by anti-CR3 antibody in mouse brain in vivo 56:529§

Microtubule associated protein,
detection of hindbrain ischemic lesions by immunolocalization of MAP2 in gerbil hindbrain 56:423

Microtubule-associated protein kinase,
differential localization of MAPK1 and MAPK2 mRNA in adult rat CNS 56:741

Midbrain,
effect of GM-1 ganglioside on dopaminergic neurons following MPTP treatment in monkey 56:965
electrophysiological and pharmacological properties of rat ventral midbrain dopaminergic neurons in long term cultures 56:409

Mitosis,
induction in microglia by anti-CR3 antibody in mouse brain in vivo 56:529§

Monoclonal antibody,
modification of effects of α-latrotoxin on GABA release and Ca^{2+} currents in rat cortical synaptosome 56:695

Motion sickness,
model of circuits between cerebellum, inferior olive and brainstem nuclei: possible explanation for motor control and motion sickness 56:647

Motor neurons,
glutamatergic and non-glutamatergic responses to thoracic spinal cord stimulation in neonatal rat lumbar motor neurons 56:189

MPTP SEE 1-methy-4-phenyl-1,2,3,6-tetrahydropyridine,

Muscarinic receptors,
quantitative localization of M_1 and M_2 binding sites in marmoset visual cortex 56:877

Muscle,
longterm effect of neonatal sciatic nerve crush injury on dendrites of motor neurons innervating the EHL muscle in rat 56:453

NADPH diaphorase,
co-localization with cGMP in canine colon and evidence for role of NO as neurotransmitter in colonic muscle and enteric ganglia 56:513

Neocortex SEE Cerebral cortex

Neostriatum SEE ALSO specific areas

Neostriatum,
effect of basic FGF pretreatment and repeated administration on nigral dopaminergic neuronal survival following transplantation into rat striatum 56:389
protection against supersensitivity effects of L-DOPA by foetal nigral grafts into 6OHDA-lesioned rat striatum and effect on dopamine receptor levels 56:45
protection against transient forebrain ischaemia by BW1003C87 in rat 56:93
restoration of function in Parkinsonism model by modified nigral cell transplants in rat 56:33
selective loss of striosome compartment, low calbindin-immunoreactive neurons following hypoxic-ischaemic injury in neonatal rats 56:305

Nerve growth factor,
changes in response to noxious mechanical stimuli in NGF

sense or antisense transgenic mouse skin 56:789§
increase associated with kainate-induced seizures and hippocampal synaptic re-organization in rat 56:597

Nerve injury,
longterm effect of neonatal sciatic nerve crush injury on dendrites of motor neurons innervating the EHL muscle in rat 56:453

Neural cell adhesion molecule,
immunolocalization of highly polysialylated N-CAM in foetal rat thyroidal calcitonin-producing cells and rMTC 6-23 cell line 56:777

Neurofilament protein,
effect of prolonged immunization with Torpedo cholinergic neuron high molecular weight neurofilament subunits on spatial behaviour in experimental autoimmune dementia rat model 56:83

Neurogenesis,
co-immunolocalization of neuron-specific enolase and GFAP in newly born [^{3}H]Thymidine-labelled neurons and glia in adult rat dentate gyrus 56:337

Neurohypophysis,
effect of osmotic stress on DNA synthesis in mouse neurohypophyseal microglia 56:929

Neuromelanin,
possible role in MPTP-induced neurotoxicity in primate midbrain dopaminergic neurons 56:499

Neuron-specific enolase,
co-immunolocalization with GFAP in newly born [^{3}H]Thymidine-labelled neurons and glia in adult rat dentate gyrus 56:337

Neuropeptide Y,
effect of exposure to light on suprachiasmatic nucleus NPY levels and role of geniculohypothalamic neurons in circadian rhythm in rat 56:813

Neurotransmitters,
characterization and localization of the main excitatory transmitters in mammalian brain 56:539*
quantitative localization of binding sites for L-glutamate, GABA, NA, ACh, and 5-HT in marmoset and comparison with data from human and rhesus monkey 56:877

Nicotine,
differential effect on IEG expression in rat superior cervical ganglion 56:729
inhibition of neurite outgrowth and role of the nicotinic α-bungarotoxin receptor in PC12 cells in culture 56:441
time-dependent increases in TH mRNA, TH enzyme activity and NA release following a single dose of nicotine in rat locus coeruleus 56:989

Nitric oxide,
role as neurotransmitter in canine colonic muscle and enteric ganglia 56:513

Nociception,
changes in response to noxious mechanical stimuli in NGF sense or antisense transgenic mouse skin 56:789§

Noradrenaline,
effect of the P_2 purine receptor antagonists suramin and Reactive Blue 2 on release in mouse vas deferens post-ganglionic sympathetic neurons 56:263§
kinetics of release in rat tail sympathetic neurons 56:535§
time-dependent increases in TH mRNA, TH enzyme activity and NA release following a single dose of nicotine in rat locus coeruleus 56:989

Noradrenaline receptors,
quantitative localization of α_1 binding sites in marmoset visual cortex 56:877

Noradrenergic neurons,
demonstration of coupling of locus coeruleus neurons during development in rat 56:129

Norepinephrine SEE Noradrenaline

Nucleus basalis magnocellularis,
effect of acidic FGF administration on spatial memory following unilateral cortical devascularization in rat and effect on septal cells in vitro 56:955

Olfaction,
afferent input pathways from primary olfactory areas to the orbitofrontal cortices in monkey 56:841
modulatory effect of $GABA_A$ receptor antagonists on odour induced activity in granule cells in frog olfactory bulb 56:905

Olfactory bulb,
differential effect of previous birth/maternal experiences on neurotransmitter release at parturition in sheep 56:557
modulatory effect of $GABA_A$ receptor antagonists on odour induced activity in granule cells in frog 56:905

Olfactory neurons,
electrophysiological characterization of a slow post-stimulus afterdepolarizing current involved in persistant muscarinic excitation in guinea-pig olfactory cortical neurons 56:887

Olfactory nucleus,
afferent input pathways from the anterior olfactory nucleus to the orbitofrontal cortices in monkey 56:841

Olfactory tubercle,
afferent input pathways from the olfactory tubercle to the orbitofrontal cortices in monkey 56:841

Opioid receptors,
localization of naloxone binding sites in hippocampal neurons grafted into ischaemic CA1-lesioned rat hippocampus 56:345

Opioids,
characterization of potassium currents in rat sensory neurons and modulation by opioids and cAMP 56:759

Orbitofrontal cortices,
afferent input pathways from primary olfactory areas in monkey 56:841

Orientation tuning,
dynamics in cat primary visual cortex 56:865

Osmotic stress,
effect on DNA synthesis in mouse neurohypophyseal microglia 56:929

Paraventricular nucleus,
differential responses of identified paraventricular neurons to suprachiasmatic nucleus stimulation in rat and possible role in circadian rhythm 56:823

Parietal cortex,
effect of long-term consumption on in vivo ACh release, AChE activity and behaviour in rat 56:465

Parkinsonism,
comparison of chromagranin A immunoreactivity in cerebrospinal fluid and blood of normal humans and in hypertension, renal failure and Parkinsons Disease 56:999
effect of basic FGF on rat dopaminergic mesencephalic neuronal survival in culture and dependency on the presence of astrocytes: possible benefit of FGF in graft survival 56:379
effect of GM-1 ganglioside on dopaminergic midbrain neurons following MPTP treatment in monkey 56:965
possible role of neuromelanin in MPTP-induced neurotoxicity in primate midbrain dopaminergic neurons 56:499
protection against supersensitivity effects of L-DOPA by foetal nigral grafts into 6OHDA-lesioned rat striatum and effect on dopamine receptor levels 56:45
sensorimotor function restoration by modified nigral cell transplants into rat striatum 56:33

Parturition,
differential effect of previous birth/maternal experiences on neurotransmitter release in the olfactory bulb in sheep 56:557

Parvalbumin,
immunolocalization in rat hippocampus following unilateral CA3 kainate injection: evidence for selective ipsi- and contralateral neuronal death 56:317
qualitative and quantitative differences in parvalbumin and VIP-containing neurons in rat neocortex and possible role in anatomical assymetry 56:833

PC12 cells,
inhibition of neurite outgrowth by nicotine and role of the nicotinic α-bungarotoxin receptor in culture 56:441

Plasticity,
review: quantal analysis of LTP and synaptic plasticity in hippocampus 56:275*

Potassium currents,
characterization in rat sensory neurons and modulation by opioids and cAMP 56:759

Potassium ions,
selective activation of a primary afferent input to the dorsal horn by high DRG K^+ levels in rat spinal cord-DRG preparation in vitro 56:473

Prepiriform complex,
afferent input pathways from the prepiriform complex to the orbitofrontal cortices in monkey 56:841

Protein kinase A,
reduction in the fast desensitizing glycine currents by PKA mediated phosphorylation in rat dissociated ventromedial hypothalamic neurons 56:605

Protein kinase C,
immunolocalization of 6 isoforms in rat cerebellar cortex 56:177

Purine receptors,
effect of the P_2 purine receptor antagonists suramin and Reactive Blue 2 on NA release in mouse vas deferens post-ganglionic sympathetic neurons 56:263§

Quantum theory,
review: quantal analysis of LTP and synaptic plasticity in hippocampus 56:275*

Raphe nucleii,
organization of 5HT neurons projecting to the cortex, hypothalamus and spinal cord in rat 56:157

Reactive Blue 2,
effect of the P_2 purine receptor antagonists suramin and Reactive Blue 2 on NA release in mouse vas deferens post-ganglionic sympathetic neurons 56:263§

Renal failure,
comparison of chromagranin A immunoreactivity in cerebrospinal fluid and blood of normal humans and in hypertension, renal failure and Parkinsons Disease 56:999

Retina,
effects of induced rejection of intracranial retinal transplants in rat 56:939

Sciatic nerve,
longterm effect of neonatal sciatic nerve crush injury on dendrites of motor neurons innervating the EHL muscle in rat 56:453

Seizures,
differential effects of anticonvulsant agents on NMDA induced IEG expression in mouse CNS 56:703
increase in neurotrophins associated with kainate-induced hippocampal synaptic re-organization in rat 56:597
quantitation of adenosine A1 receptors followed by pentylentetrazol administrtation in mouse brain 56:711

Sensorimotor neurons
model of circuits between cerebellum, inferior olive and brainstem nuclei: possible explanation for motor control and motion sickness 56:647
proposed role of cerebellum and inferior olive in model of sensorimotor plasticity: stable estimator hypothesis 56:617
restoration of function in Parkinsonism model by modified nigral cell transplants into rat striatum 56:33

Sensory neurons,
characterization of potassium currents in rat and modulation by opioids and cAMP 56:759
identification of capsaicin- and bradykinin-sensitive sub-populations by cobalt uptake in rat DRG cell cultures 56:241

Serotonin SEE 5-Hydroxytryptamine

Skin,
changes in response to noxious mechanical stimuli in NGF sense or antisense transgenic mice 56:789§

Sleep,
electrophysiological properties of intralaminar thalamocortical cells during waking and REM sleep in cat 56:1

Sodium ions,
induction of a Na^+ inward current in dopaminergic mesencephalic neurons by activation of the metabotropic glutamate receptors by t-ACPD in rat 56:399

Somatostatin,
immunolocalization in rat hippocampus following

unilateral CA3 kainate injection: evidence for selective ipsi- and contralateral neuronal death 56:317

Spinal cord,
glutamatergic and non-glutamatergic responses to thoracic spinal cord stimulation in neonatal rat lumbar motor neurons 56:189
identification of rectospinal neurons projecting to spinal cord and co-immunolocalization of VIP and CGRP in rat 56:367
longterm effect of neonatal sciatic nerve crush injury on dendrites of motor neurons innervating the EHL muscle in rat 56:453
organization of 5HT neurons projecting from the dorsal Raphe nucleus in rat 56:157
selective activation of a primary afferent input to the dorsal horn by high DRG K^+ levels in rat spinal cord-DRG preparation in vitro 56:473

Spirodecanone receptors,
localization of receptor binding sites in hippocampal neurons grafted into ischaemic CA1-lesioned rat hippocampus 56:345

Striatum SEE Neostriatum

Substance P,
co-immunolocalization with ChAT in cat caudate nucleus 56:567

Substantia nigra,
effect of basic FGF pretreatment and repeated administration on nigral dopaminergic neuronal survival following transplantation into rat striatum 56:389
loss of cannabinoid receptors in Huntington's disease 56:523§
protection against supersensitivity effects of L-DOPA by foetal nigral grafts into 6OHDA-lesioned rat striatum and effect on dopamine receptor levels 56:45
restoration of function in Parkinsonism model by modified nigral cell transplants into rat striatum 56:33

Superior cervical ganglion,
differential effect of nicotine on IEG expression in rat 56:729

Superior colliculus,
reorganization of 5HTergic and glutaminergic neurons following neonatal enucleation in rat 56:165

Suprachiasmatic nucleus,
differential responses of identified paraventricular neurons to suprachiasmatic nucleus stimulation in rat and possible role in circadian rhythm 56:823
effect of exposure to light on NPY levels and role of geniculohypothalamic neurons in circadian rhythm in rat 56:813
role of cellular communication: review 56:793*

Supraoptic nucleus,
effect of chronic alcohol consumption and of dehydration in adult rat 56:657

Suramin,
effect of the P_2 purine receptor antagonists suramin and Reactive Blue 2 on NA release in mouse vas deferens post-ganglionic sympathetic neurons 56:263§

Sympathetic nerves,
effect of the P_2 purine receptor antagonists suramin and Reactive Blue 2 on NA release in mouse vas deferens post-ganglionic sympathetic neurons 56:263§
identification of renal sympathetic preganglionic neurons in hamsters using retrograde labelling with Herpes simplex virus 56:227
kinetics of noradrenaline release in rat tail 56:535§

Synapses,
immunolocalization of GABA in synaptic boutons on primary afferent fibres in rat cuneate nucleus 56:973
ultrastructural morphology in rat brain and evidence for a high percentage of ATP-containing vesicles 56:247

Synaptic vesicles,
characterization and localization of the main excitatory neurotransmitters in mammalian brain 56:539*

Tau protein,
immunolocalization by ALZ-50 in normal human 56:109

Thalamus,
electrophysiological properties of intralaminar thalamocortical cells during waking and REM sleep in cat 56:1
GHB-induced spike and wave properties in rat and role of GHB high affinity receptors 56:11

Thyroid,
immunolocalization of highly polysialylated N-CAM in foetal rat thyroidal calcitonin-producing cells and rMTC 6-23 cell line 56:777

Transplantation,
effects of induced rejection of intracranial retinal transplants in rat 56:939

Tyrosine hydroxylase,
time-dependent increases in mRNA, enzyme activity and NA release following a single dose of nicotine in rat locus coeruleus 56:989

Vas deferens,
effect of the P_2 purine receptor antagonists suramin and Reactive Blue 2 on NA release in mouse post-ganglionic sympathetic neurons 56:263§

Vasoactive intestinal peptide,
identification of rectospinal neurons projecting to spinal cord and co-immunolocalization of VIP and CGRP in rat 56:367
qualitative and quantitative differences in parvalbumin and VIP-containing neurons in rat neocortex and possible role in anatomical assymetry 56:833

Visual cortex,
dynamics of orientation tuning in cat 56:865
quantitative localization of binding sites for L-glutamate, GABA, NA, ACh, and 5-HT in marmoset and comparison with data from human and rhesus monkey 56:877

Visual system,
effect of neonatal enucleation on 5HT, dopamine and glutamate in rat superior colliculus 56:165

• BACK ISSUES OF •
THIS
JOURNAL

Back issues of this and all other Elsevier Science journals are available in hard copy. New subscribers to a journal may purchase back issues of that publication in hard copy edition at 25% discount off the standard price. Elsevier Science maintains stocks of back issues and orders may be placed with confidence at your nearest Elsevier Science office. Should any issue of a volume be temporarily out of stock at the time of ordering, a high quality photoduplicated copy will be supplied at no extra charge to complete your order.

SAVE UP TO 25% BY PURCHASING COMPLETE SETS
Customers wishing to purchase complete sets can do so at a saving of 25% off the individual volume price.

MICROFORM EDITIONS
Back issues in microform of Elsevier Science research journals are also available. For further information please apply to your nearest Elsevier Science office.

BACK ISSUES PRICE LIST
Full details of the rates of back issues of all Elsevier Science journals can be found in our Back Issues Price List. Please contact your nearest Elsevier Science office for a copy.

Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, UK
Telephone: +44 01865 843699 • Fax: +44 01865 843911
Elsevier Science Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, USA
Telephone: +1 914 524 9200 • Fax: +1 914 333 2444

COR017/p2

Receive Regular News of Elsevier 's Publications

Elsevier Science mails information on new and existing publications regularly.
If you would like to be added to the mailing list please send us your name and full mailing address, indicating your fields of interest:

ENGINEERING
Energy Sources & Technology, Civil & Structural Engineering,
Mechanical Engineering, Electrical & Electronic Engineering,
Systems & Control Engineering, Aeronautical & Aerospace Technology,
Materials Technology, Chemical Engineering

LIFE SCIENCES & MEDICINE
Biological Sciences (including biochemistry & molecular biology), Agriculture,
Veterinary Medicine, Immunology, Cancer Research, Pharmacology, Neuroscience,
Vision Science, Clinical Medicine

PHYSICAL SCIENCES
Computer Science, Physics, Chemistry, Mathematics, Earth Science,
Environmental Science, Materials Science, Space & Planetary Sciences

SOCIAL SCIENCE & HUMANITIES
Sociology, Women's Studies, Psychology, Education,
Political Science, Geography, Economics, Management & Business, Linguistics,
Information Science, Librarianship

ELSEVIER
SCIENCE

Elsevier Science Ltd
The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, UK

Elsevier Science Inc.
660 White Plains Road, Tarrytown, NY 10591-5153, USA

COR017/P4

SEND FOR A FREE SAMPLE COPY OF ...

NEUROCHEMISTRY INTERNATIONAL

The Journal for the publication of cellular and molecular aspects of neurochemistry in the form of original and rapid research communications and also critical reviews and commentaries

Executive Editors (Chairman): **N.N. Osborne**, *Nuffield Laboratory of Ophthalmology, University of Oxford, Walton Street, Oxford OX2 6AW, UK*
(For Europe and Africa): **J. Rossier**, *Institut A Fessard, CNRS, 91198 Gif-sur-Yvette, France*
(For Asia): **K. Kuriyama**, *Department of Pharmacology, Kyoto Prefectural University of Medicine, Kawaramachi-Hirokoji, Kamikyo-ku, Kyoto, Japan*
(For Australasia): **G.A.R. Johnston**, *Department of Pharmacology, University of Sydney, Sydney, NSW 2006, Australia*
(For The Americas): **W. Lovenberg**, *Marion Merrell Dow Research Institute, 2110 East Galbraith Road, Cincinnati, OH 45215, USA,*
N.H. Neff, *Department of Pharmacology, Ohio State University College of Medicine, 333W 10th Avenue, Columbus, OH 43210, USA* and
R. Tapia, *Instituto de Fisiologia Celular, Universidad Nacional, AP 70-600, 04510 Mexico DF, Mexico*

Audience: Neurochemists and all those with an interest in the nervous system.

AIMS AND SCOPE
Neurochemistry International publishes papers primarily concerned with the metabolism and function of the nervous system. This also incorporates the chemical aspects of the anatomy, pathology, physiology, pharmacology and genetics of the nervous system, as well as the biochemistry of the nervous tissues. Other papers demonstrate the relationship of fundamental neurochemical observations to basic neurology, neuropharmacology, chemical pathology and neurotransmission of the nervous system.

A Selection of Papers
A. FRANDSEN, A. SCHOUSBOE (Denmark), Effect of magnesium on NMDA mediated toxicity and increases in $[Ca^{2+}]$ and cGMP in cultured neocortical neurons: evidence for distinct regulation of different responses.
G. KAPATOS, K. HIRAYAMA (USA), A comparison of the developing dopamine neuron phenotype in cultures of embryonic rat mesencephalon and hypothalamus.
L. FERHAT, A. BERNARD (France), **L.R. DE POUPLANA** (USA), **Y. BEN-ARI, M. KHRESTCHATISKY** (France), Structure, regional and developmental expression of rat MAP2d, a MAP2 splice variant encoding four microtubule-binding domains.
J.J. DALLY, S.A. GREENFIELD (UK), The release of acetylcholinesterase *in vivo* is regulated by dopaminergic systems in the guinea-pig substantia nigra.
T. CHIKUMA, T. KOCHA, K. HANOAKA, T. KATO, Y. ISHII, A. TANAKA (Japan), Characterization of peptidylglycine α-amidating monooxygenase in bovine hypothalamus.
D.F. CONDORELLI, N. BELLUARDO, G. MUDÒ, P. DELL'ALBANI, X. JIANG, A.M. GIUFFRIDA-STELLA (Italy), Changes in gene expression of AMPA-selective glutamate receptor subunits induced by status epilepticus in rat brain.
K. WELLS, D.K. ANDERSON, A.A. FAROOQUI, L.A. HORROCKS (USA), Excitotoxicity of glutamate and four analogs in primary spinal cord cell cultures.
A. THEODORIDU, C. OLENIK, C. BOECKH, P. ZIEFER, P. GEBICKE-HÄRTER, D.K. MEYER (Germany), Interaction of protein kinases A and C in their effects on the proenkephalin gene in astroglial cells.
C. WOLFMAN (Argentina) **V. ABÓ** (Uruguay) **D. CALVO, J. MEDINA** (Argentina) **F. DAJAS, R. SILVEIRA** (Uruguay), Recovery of central noradrenergic neurons one year after the administration of the neurotoxin DSP4.

ABSTRACTED/INDEXED IN: *Biosis Database, CABS, Chemical Abstracts Service, Current Contents SCISEARCH Database, Current Contents Science Citation Index, Current Contents/ISI/BIOMED Database, Current Contents/Life Science, EMBASE, Index Medicus, MEDLINE, PASCAL-CNRS Database, Psychology Abstracts, Research Alert.*

1995: Volumes 26-27 (12 issues)
Subscription price: **£420.00 (US$626.00)**
ISSN 0197-0186 (00643)

Pergamon

Pergamon is an imprint of Elsevier Science.
If an Associated Personal Subscription rate is available full details accompany every sample copy requested. Sterling price quoted applies worldwide except in The Americas. US dollar price quoted applies in The Americas only.
Prices include postage and insurance. Customers resident in the EU will be charged VAT (or the equivalent) at their own country's rate, unless a VAT (or equivalent) registration number is supplied. Elsevier Science VAT registration number in the UK: GB 490 6384 25 000.

Please send me a **FREE SAMPLE COPY** of **NEUROCHEMISTRY INTERNATIONAL (00643)**

Name _____ Position _____

Organisation _____ Department _____

Address _____

_____ Post/Zip Code _____

Return to: Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, UK
or Elsevier Science Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, USA

IHA5

INTERNATIONAL BRAIN RESEARCH ORGANIZATION
World Federation of Neuroscientists
Incorporated as an independent international organization
Ottawa 1961

D. P. Purpura (U.S.A.)	*President*
M. Ito (Japan)	*Honorary President*
D. Ottoson (Sweden)	*Secretary-General*
M. Imbert (France)	*Executive Secretary*
P. Strata (Italy)	*Treasurer*
P. Strata (Italy)	*Director, Workshop and Symposia Programme*
A. D. Smith (U.K.)	*Director, Publications Programme*
E. S. Vizi (Hungary)	*Director, Fellowships Programme*
C. Blakemore (U.K.)	*Managing Editor, IBRO News*

Secretary-General
Prof. D. Ottoson
51, Bd. de Montmorency
75016 Paris
France

Executive Secretary
Dr M. Imbert
51, Bd. de Montmorency
75016 Paris
France

IBRO Secretariat
Assistant Executive Secretary
Ms Olga Popoff
51, Bd. de Montmorency
75016 Paris
France

IBRO NEUROSCIENCE CALENDAR

The International Brain Research Organization publishes a calendar of events in the neurosciences. It is hoped that the calendar, which is published in *IBRO News*, will help scientists in the field to plan ahead for the meetings they wish to attend. The aim of the calendar is to contain as many announcements as possible of forthcoming scientific meetings in the neurosciences throughout the whole world. It is in a form suitable for mounting on a wall.

IBRO invites organizers of meetings to send information on their meetings, together with a statement as to whether the date is definite or provisional, to: Office of *IBRO News*, University Laboratory of Physiology, Parks Road, Oxford OX1 3PT, U.K.

PRINTED IN ENGLAND BY BPC WHEATONS LTD, EXETER